



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Figure 2. Aragula Gururao Rao and Keith R. Roesler (Serial No. 09/311,689)  
"PROTEINS WITH INCREASED LEVELS OF ESSENTIAL AMINO ACIDS"

	20	30	40	50	60	70	80
WT CI-2	*	*	*	*	*	*	*
Homologs							
1	GAKTSWPELVGMSAEKAKEIILRDKPNAQIEVIPV-DAMV-PLNFNPNRVFLVHKATTVAZVSRVG						
2	GAKTEWPELVGCTIKEAKEKIKADRPDLKVIVPV-GSIV-TQEIDLNRVRVWVDKV--AKVPKIG						
3	GAKTSWPELVGLSVEDAKKVILKDKPDADIVLVP-GSVV-TADYRPNRVRIFVDIV--AQTPHIG						
4	--RTSWPELVGSAAEARK-IKEEMPEAEIQVVPQ-DSFV-TADYKFORVRLYVDES NKVVRAAPIG						
5	AEKSSWPELVGEDGEEAVKIIQQENPSLDVILMPR-GQNWATLDCRPNRVRVFENDES GKVNSIPRIG						
6	TRKTSWPELVGVTAEEAE-KIKEEMSGVEIQVPP-GSFV-TADYKQPRVRLYVDES NKVTRTPGIG						
7	PTKTSWPELVGVTAEQAEKIKEEMVDVQIQVSPH-DSFV-TADYNPKRVRKYVDES NKVTRTPSIG						
8	VTKERWPELVGTPAKFAMQIIQKENPKLTNVQTVLNGTPV-TEDLRCNRVRLFVNVLDFVVTQTPQVG						
9	NKKEWPELVIGVPAKFAREIIQKENS KLTNVPSVLNGSPV-TKDFRCERVRVFNVLDFVVTQIPRVG						
10	VGKNTWPELVCGARGEAAATVETENPSVTAVIPE-GSIV-TTDERCDRVRVWVDENGIVTRVPVIG						
11	QKGSSWPQLVGSTGAAAKAVIERENPRVRAVIIKV-GSGA-TKDFRCDRVRVWTERGIVARPTTIG						
12	PGKSSWPHLVGVGGSVAKAIIERQNPNVKAVILEE-GTPV-TKDFRCNRVRVWVNRKGLVVSPPRIG						
13	DGKLQWPELVIGVPTKLAKEIIEKQNSLISNVHILLNGSPV-TMDFRCNRVRLFDDILGSVVQIPRVA						
14	NGKLSWPELVIGVPAHYAKGIIIEKENS LITNVQILLNGSPV-TMDYRCNRVRLFDNLDGVVQIPRVA						
15	KGKQFWPELVIGVPALYAKGIIIEKENPSITNIPILLNGSPV-TKDFRCDRVRLFVNILGVDVVQIPRVT						
16	VTKESWPELVGTPAKFAKQIIQKENPKLTNVETLLNGSAF-TEDLRCNRVRLFVNLLDIVVQTPKVG						
17	EGKQMWPELVIGVPTKLAKEIIEKENPSITNIPILLSGSPI-TLDYLCDRVRLFDNLDGVVQMPVVVT						
18	PGKQEWPELVGEYGYKAAAIIERENPNVRSIVKHE-RSGF-TKDFRCDRVWVVVDSTGVVVRTPRVT						
19	VIFNSWSVLGTGTNGDYAAVVIERENPTVNAAVILD-GSPV-TADFRCDRVRVFDGNRIIVVKTPKSG						

WT CI-2=Seq. ID #4	Homologs 7=Seq. ID #41	Homologs 14=Seq. ID #48
Homologs 1=Seq. ID #35	Homologs 8=Seq. ID #42	Homologs 15=Seq. ID #49
Homologs 2=Seq. ID #36	Homologs 9=Seq. ID #43	Homologs 16=Seq. ID #50
Homologs 3=Seq. ID #37	Homologs 10=Seq. ID #44	Homologs 17=Seq. ID #51
Homologs 4=Seq. ID #38	Homologs 11=Seq. ID #45	Homologs 18=Seq. ID #52
Homologs 5=Seq. ID #39	Homologs 12=Seq. ID #46	Homologs 19=Seq. ID #53
Homologs 6=Seq. ID #40	Homologs 13=Seq. ID #47	